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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/728,359	12/01/2000	David Helm	CM04662H	4118

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EXAMINER
MEHRA, INDER P

ART UNIT	PAPER NUMBER
2666	

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/728,359	HELM ET AL.
	Examiner	Art Unit	
	Inder P Mehra	2666	*pe*

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _22 July 2004_ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _2-6,9-12 and 14-24_ is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _2-6,9-12 and 14-24_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _01 December 2000_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

   If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____ .

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
       application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

   a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)   4)☐ Interview Summary (PTO-413) Paper No(s). _____ .
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5)☐ Notice of Informal Patent Application (PTO-152)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .   6)☐ Other:

Response to Amendment

1.   This is in response to an amendment dated 7/22/04. Based on this amendment, claims 1, 7, 8 and 13 were cancelled previously, claims 2 (amended thrice), 3 (amended twice), 4 (amended once), 5 (amended (once), 6 (amended twice), 9 (amended twice), 10 (amended twice), 11(amended once), 12 (amended twice), 14 (amended twice), 15 (amended thrice), 16 (amended once), 17 (amended twice), 18 (amended once), 19 (amended once), 21 (amended once), and 22 (amended thrice). claims 2-6, 9-12, and 14-24 are now pending. In view of the following explanation , this office action is Non-Final.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 2, 6, 9, 12, 15-16 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Haggerty et al** (US Patent No. 6,331,983), hereinafter Haggerty in view of **Dunstan et al** (US Patent No. 6,654,371), hereinafter, Dunstan, and **Chuah et al** (US Patent No. 6,515,994), hereinafter, Chuah.

Regarding claims 2, 12, 15-16 and 22, Haggerty discloses, in reference to fig. 5, multi-cast communication involving multi-cast switches; a method comprising:

- announce information to other switches---for connection set up (sending or receiving indicia, as recited in claim 2, from a sending host packets addressed to a multicast group), refer to col. 17 lines 17-22,col. 18 lines 24-26, and col. 32 lines 19-21;

- IGMP state machine to facilitate hosts join multicast group and reliable delivery setting a timer to ensure reliably join the multicast group (issuing a join command to join the multicast group address) refer to col. 17 lines 22-24 and 39-42;

- reliable delivery setting a timer to ensure reliably join the multicast group (determining whether any packets are received), refer to col. 17 lines 22-24 and 39-42;

- if a timer expires without any reports (to ensure reliably joined or not information in the table), there are no receivers for that group (if packets are received by the receiving host within the designated time period, determining that the receiving host is joined to the multicast group), refer to col. 19 lines 29-51;

- whereby the method is independent of the multicast network, refer to "Haggerty discloses explicitly, "Protocol independent Multicast-Dense Mode", refer to col. 15 line 3; "independent of spanning tree used for the multicast", refer to col. 14 lines 59-61. Further, Fig. 1 used by Haggerty is for example only, refer to col. 10 lines 40-43.

Haggerty does not disclose expressly if any packets are received within designated time period, determining that the receiving host is reliably joined to the multi-cast group address;

Dunstan discloses "received a group join" (join command), refer to col. 4 lines 30-35;

Chuah discloses, "determining whether any packets are received within a designated time period after the step of issuing a join command" (Interested individuals will note the time and date of the multicast and listen to the multicast at the designated time and date. Users who fail to join the multicast at the appropriate time will not receive the desired file, refer to col. 2 lines 15-30).

A person of ordinary skill in the art would have been motivated to employ Dustan system and Chuah's system into Haggerty's multi-cast switching system in order to ensure the receiver having reliably joined within specified time or leave with IGMP message. The suggestion/motivation to do so would have been logical to ensure the reliable join by receivers and use IGMP Leave message to leave multi-cast group.

Regarding claims 6 and 21, Haggerty discloses the method of claim 1, comprising:

- message sent to all routers group address in multi-cast router network communication (sending/receiving messages---------- the multi-cast group address), refer to col. 18 lines 21-36;

Regarding claim 9, Haggerty discloses, in reference to fig. 10, host can join a multi-cast group through IGMP protocol or reports (sending an IGMP join message to one or more network devices), refer to col. 14 lines 28-30, col. 17 lines 22-23 and col. 18 lines 51-52.

Regarding claims 23 and 24, Haggerty discloses, routers (gateways), refer to col. 17, line 24, internetwork 117 in fig. 1, mobile sender, refer to col. 20 line 50 (sourcing host ---selected from the group consisting of----wireless communication device);

4.   Claims 3-5, 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Haggerty et al**, hereinafter Haggerty, in view of Dunstan and Chuah, as above, and further in view of **Donahue et al** (US Patent No.6,266,339), hereinafter Donahue.

Regarding claims 3-5 and 17- 20, Haggerty discloses video data in packet (video payload), refer to col. 10 lines 56-67;

Haggerty, Dunstan and Chuah do not disclose test packets and payload; audio payload, multimedia payload, and multiple test packets before sending payload;

Donahue discloses audio video multi-cast channel payload, col. 11 line 56 and col. 14 lines 48-51; and data payload of the multi-cast including IP address and test pattern (packets comprise sending multiple test packets before sending payload);

A person of ordinary skill in the art would have been motivated to employ Dunstan, Chuah's system, and Donahue's high bandwidth broadcasting system into Haggerty's multi-cast switching system in order to have packets include audio/video payload and test packets. The suggestion/ motivation to do so would have been logical to have integrated data system. It would have been obvious to a person of an ordinary skill in the art that the use of audio/video data transmission system is capable of multi-casting to large number of receivers.

5.   Claims 10, 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Haggerty et al, hereinafter Haggerty in view of Dunstan and Chuah, as above, and further in view of **Adelman et al** (US Patent No.6,006,259), hereinafter Adelman.

Regarding claims 10, 11 and 14, Haggerty discloses the method of claim 2 further comprising:

- announcement signal on leaving a group (issuing a leave command) to the one or more network devices, refer to col. 21 lines 37-38;

- IGMP state machine to facilitate hosts join multicast group and reliable delivery setting a timer to ensure reliably join the multicast group (re-attempting to join the multicast group address) refer to col. 17 lines 22-24 and 39-42;

- reliable delivery setting a timer to ensure reliably join the multicast group (determining whether any packets are received by the receiving host within a designated time period), col. 17 lines 22-24 and 39-42;

- if a timer expires without any reports, there are no receivers for that group (if packets are not received by the receiving host within the designated time period, determining that the receiving host is not reliably joined to the multicast group), refer to col. 19 lines 29-51;

Haggerty, further discloses IGMP leave message, recited in claim 11, for leaving multicast group; refer to col. 21 lines 35-38; and announces to all switches (sending an IGMP leave message to one or more local network devices), refer to col. 21 lines 35-38;

Dunstan and Chuah disclose host sending packets to the multicast address in designated time (determining whether any packets are received within a designated time period----); further

discloses, "if joined after the designated time interval, it is not accepted and relevant entries in

the table cleared" (if packets are not received ----within the designated time period, determined

that the first host is not joined ---to the group), refer to col. 2 lines 15-30

Haggerty, Dunstan and Chuah do not disclose expressly re-attempting to join the

multi-cast group address, even though Haggerty discloses hosts want to join multicast groups,

refer to col. 17 lines 39-42;

Adelman discloses cluster member/cluster client will try to join the cluster **again** (re-

attempting to reliably join the multi-cast group address;

A person of ordinary skill in the art would have been motivated to employ Adelman's

network clustering system andDunstan's system, Chuah's system into Haggerty's multi-cast

switching system in order to ensure the receiver having reliably joined within specified time or

leave with IGMP message. The suggestion/ motivation to do so would have been logical to have

joined within designated time to ensure the reliable join by receivers and use IGMP Leave

message to leave multi-cast group.

Response to Arguments

6.   Applicant's arguments filed 2/10/04, in regard to claims 2-6,9-12, and 14-24 have been

fully considered but they are not persuasive.

Applicant argues , "Applicants' have added a limitation to independent claims 2, 15, and

22 so that Applicants', claimed invention is "independent of the multicast network." Further,

Applicants' argue that support for the new limitation is found is found in Applicants'

specification.

In response, it is stated that this limitation is not supported by specification. Pages of specification, as specified by the Applicants', describe the devices used in fig. I. Therefore, once the network is selected, the devices will be used accordingly. The use of devices will be tailored according to user's requirements.

However, Haggerty discloses explicitly, "Protocol independent Multicast-Dense Mode", refer to col. 15 line 3; "independent of spanning tree used for the multicast", refer to col. 14 lines 59-61. Further, Fig. 1 used by Haggerty is for example only, refer to col. 10 lines 40-43.

Applicant argues, "Nowhere does Haggerty teach. suggest or make obvious------ determining whether any packets are received by the first host within a designated time period after the step of issuing a join command; and

If any packets are received by the first host within the designated time period, determining that the first host is joined to the multicast group address; otherwise, if any packets are not received by the first host within the designated time period, determining that the first host is not joined to the multicast , group address".

In response, it is stated that Dunstan and Chuah disclose host sending packets to the multicast address in designated time (determining whether any packets are received within a designated time period----); further discloses, "if joined after the designated time interval, it is not accepted and relevant entries in the table cleared" (if packets are not received ----within the designated time period, determined that the first host is not joined ---to the group), refer to Chuah's col. 2 lines 15-30.

In the light of above explanation, the arguments by applicant are not persuasive.

Comments

Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Inder P Mehra whose telephone number is 571-272-3170. The examiner

can normally be reached on Monday through Friday from 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Inder P Mehra
Examiner
Art Unit 2666